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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,187	02/24/2004	Masaaki Sudo	249298US2S	1104
22850	7590	09/16/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
MEHTA, PARIKHA SOLANKI				
ART UNIT		PAPER NUMBER		
3737				
NOTIFICATION DATE		DELIVERY MODE		
09/16/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/784,187

Applicant(s)

SUDO ET AL.

Examiner

PARIKHA S. MEHTA

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 April 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 4-13 are rejected under 35 U.S.C. 103(a) as being obvious over Saitoh et al (US Patent No. 5,402,791), previously of record, hereinafter Saitoh ('791), in view of Garcia (US Patent No. 6,162,178), hereinafter Garcia ('178).

Saitoh ('791) teaches an ultrasonic probe comprising a piezoelectric transducer, a conductive substrate arranged oppositely to a side face of the transducer, and a conductive material arranged in a corner portion formed by the transducer and substrate (Figs. 1 & 8). The conductive substrate of Saitoh ('791) has signal and ground (earth) wires as claimed in the instant application (Fig. 8 elements 30. col. 8

line 48 – col. 9 line 6), and it is shown to have one top end which is relatively closer to the transducer than the bottom end, the top end extending beyond a side face of the transducer (Fig. 8). The backing material of Saitoh (Fig. 1 element 2) is positioned between a jointed portion of the signal and earth wirings and is nonconductive. The signal or ground wire of the conductive substrate is connected to a first electrode, and the other wire is connected to a second electrode formed on the back side of the transducer (Fig. 8). A face of the conductive substrate of Saitoh ('791) is disposed on a plane equal to a side face of the transducer as claimed in the instant application (Fig. 1). Saitoh ('791) teaches that the conductive material may be a flat layer or a fillet pattern (col. 10 lines 11-45, col. 9 lines 54-62). Saitoh ('791) also includes two conductive substrates, one connected to a ground wire and one connected to a signal wire, both being arranged on opposite faces of the piezoelectric transducer (col. 10 lines 40-45). In this embodiment of Saitoh ('791), the ground wire of Saitoh is connected to a first electrode, and the signal wire is connected to a second electrode (col. 10 lines 40-45).

Saitoh ('791) does not expressly teach a nonconductive material insulating a jointed portion of the piezoelectric transducer with the signal wiring from a jointed portion of the piezoelectric transducer with the earth wiring. In the same field of endeavor, Garcia ('178) teaches an ultrasound probe with nonconductive coatings for the signal and ground wires (col. 4 line 60 - col. 5 line 5) to ensure electrical isolation between the signal and ground wires. It would have been obvious to one of ordinary skill in the art at the time of endeavor to have encapsulated the signal and earth wirings of Saitoh ('791) with the non-conductive material of Garcia ('178) in order to achieve the claimed invention, in view of the teachings of Garcia ('178).

Response to Arguments

5. Applicant's arguments filed 28 April 2008 have been fully considered but are moot in view of the new grounds of rejection presented herein.
6. Applicant's amendment to the title is sufficient to overcome the previous objection to the specification, which is hereby withdrawn.
7. Applicant's amendment to the drawings is sufficient to overcome the previous objection for containing informal matter, which is hereby withdrawn.

8. Applicant's amendment to claims 1 and 21 are sufficient to overcome the previous rejection under 35 U.S.C. 112, which is hereby withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARIKHA S. MEHTA whose telephone number is (571)272-3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/
Primary Examiner, Art Unit 3737

/Parikha S Mehta/
Examiner, Art Unit 3737